

MATERIAL SAFETY DATA SHEET

For R&D use only. Not for drug, household or other uses.

Click <http://www.lookchem.com/cas-76/76-14-2.html> for suppliers of this product.

Composition/Information on Ingredient

Cas:
76-14-2
Code:
M

RTECS:
KI1101000
Code:
M

Name:
1,2-DICHLOROTETRAFLUOROETHANE

Other REC Limits:
NONE RECOMMENDED

OSHA PEL:
1000 PPM
Code:
M

OSHA STEL:

Code:

ACGIH TLV:
1000 PPM; 9394
Code:
M

ACGIHSTEL:
N/P
Code:

Control Measures

Respiratory Protection:
IF INADEQUATELY VENTILATED AREAS, A NIOSH/MSHA APPROVED (TC-19C) SUPPLIED AIR RESPIRATOR OR SELF-CONTAINED BREATHING APPARATUS IS REQUIRED.

Ventilation:
USE WITH ADEQUATE VENTILATION. WHERE VENTILATION IS INADEQUATE, USE A LOCAL EXHAUST SYSTEM TO REMOVE VAPORS.

Protective Gloves:
SYNTHETIC RUBBER SUCH AS NEOPRENE, LINED

Eye Protection:
USE GOGGLES TO PROTECT EYES.

Other Protective Equipment:
Equipment PROTECT ALL EXPOSED SKIN FROM LIQUID.

Work Hygienic Practices:
WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING, DRINKING OR SMOKING. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health:
DO NOT GET ON SKIN OR IN EYES. DO NOT BREATHE VAPORS OR MIST. DESTROY CONTAMINATED SHOES. DO NOT SMOKE. READ LABEL BEFORE USE. DO NOT CUT, GRIND OR WELD ON OR NEAR CONTAINER DUE TO POSSIBLE TOXIC FUME S GENERATION. 3

Health Hazards Data

LD50LC50Mixture:
ORAL LD50 (RAT) IS 2,250 MG/KG

Route Of Entry Inds - Inhalation:
YES

Skin:
YES

Ingestion:
YES

Carcinogenicity Inds - NTP:
NO

IARC:
NO

OSHA:
NO

Health Hazards Acute And Chronic:
EYE-IRRITANT. SKIN-IRRITANT.

Explanation Of Carcinogenicity:
THIS PRODUCT DOES NOT CONTAIN ANY COMPONENTS LISTED BY NTP OR IARC OR REGULATED BY OSHA AS CARCINOGENS.

Signs And Symptoms Of Overexposure:
EYE-VAPOR IS IRRITATING TO EYES. LIQUID IS IRRITATING TO EYES & MAY CAUSE TISSUE TO FREEZE. SKIN-CONTACT WITH LIQUID MAY CAUSE TISSUE TO FREEZE (FROST BITE). CHEMICAL ITSELF IS NOT IRRITATING.

Medical Cond Aggravated By Exposure:
NONE SPECIFIED BY MANUFACTURER.

First Aid:
INGESTION-N/A, PRODUCT IS A GAS AT AMBIENT CONDITIONS. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DERMAL- FLUSH EXPOSED SKIN WITH LUKEWARM WATER (NOT HOT) OR USE OTHER MEANS TO WARM SKIN S LOWLY. EYE-FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MIN. INHALATION-REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF HARD TO BREATHE, GIVE OXYGEN. GET MEDICAL ATTENTION IN ALL CASES

Spill Release Procedures:
KEEP UPWIND, EVACUATE ENCLOSED SPACE. REMOVE OR EXTINGUISH IGNITION SOURCES. S LEAK IF POSSIBLE WITHOUT RISK. DISPERSE GAS WITH FLOOR-LEVEL FORCED-AIR VENTILATION. EXHAUST VAPORS OUTDOORS. REMOVE ALL FLAMES, HEATING ELEMENTS & GAS ENGINES.

Neutralizing Agent:
N/R

Waste Disposal Methods:
RECYCLE OR RECALIM IF POSSIBLE. RECLAIM MATERIAL MAY BE INCINERATED BUT TOXIC AND CORROSIVE COMBUSTION PRODUCTS (HF AND HCL) MUST BE HANDLED APPROPRIATELY. CONSULT FEDERAL, STATE AND LOCAL AUTHORITIES FOR PROPER DISPOSAL.

Handling And Storage Precautions:
KEEP AWAY FROM HEAT, SPARKS & FLAMES. STORE IN TIGHTLY CLOSED CONTAINERS. KEEP CONTAINERS CLOSED. EMPTY CONTAINER MAY CONTAIN HAZARDOUS RESIDUES.

Other Precautions:
2 TOXICITY COMMENTS: DENSE VAPOR DISPLACES BREATHING AIR IN CONFINED OR UNVENTILATED AREAS. INHALING CONCENTRATED VAPORS CAN CAUSE DROWSINESS, UNCONSCIOUSNESS, RESPIRATORY DEPRESSION AND DEATH DUE TO ASPHYXIATION.

Fire and Explosion Hazard Information

Flash Point Method:
N/P

Flash Point:

Flash Point Text:
NONFLAMMABLE

Autoignition Temp:

Autoignition Temp Text:
N/R

Lower Limits:
N/R

Upper Limits:
N/R

Extinguishing Media:
USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS.

Fire Fighting Procedures:
WEAR SELF-CONTAINED BREATHING APPARATUS IN FIGHTING FIRES NEAR THIS PRODUCT DUE TO TOXICITY OF THERMAL DECOMPOSITION PRODUCTS. KEEP CONTAINERS COOL.

Unusual Fire/Explosion Hazard:
MAY DECOMPOSE DURING HEATING RELEASING IRRITATING, TOXIC & CORROSIVE GASES. CONTAINERS MAY EXPLODE IF HEATED DUE TO RESULTING PRESSURE RISE.

Physical/Chemical Properties

HCC:
G3

NRC/State LIC No:
N/R

Net Prop WT For Ammo:

Boiling Point:
=3.8C, 38.7F

B.P. Text:
38.8F,3.8C

Melt/Freeze Pt:
=-93.9C, -137.F

M.P/F.P Text:
-137F,-94C

Decomp Temp:

Decomp Text:
N/P

Vapor Pres:
27.26 PSIA

Vapor Density:
5.9

Volatile Org Content %:

Spec Gravity:
1.44

VOC Pounds/Gallon:

PH: N/R

VOC Grams/Liter:

Viscosity:
N/R

Evaporation Rate & Reference:
N/K

Solubility in Water:
SLIGHT

Appearance and Odor:
COLORLESS LIQUIDIFIED GAS WITH FAINT ETHERAL ODOR.

Percent Volatiles by Volume:
100

Corrosion Rate:
UNKNOWN

Reactivity Data

Stability Indicator:
YES

Stability Condition To Avoid:
THERMAL DECOMPOSITION DUE TO EXPOSURE TO HEAT (>800F) OR FIRE.

Materials To Avoid:
STRONG ALKALI OR ALKALINE EARTH METALS, FINELY POWDERED METALS SUCH AS ALUMINUM, MAGNESIUM OR ZINC &STRONG OXIDIZERS.

Hazardous Decomposition Products:
THERMAL DECOMPOSITION PRODUCTS INCLUDE HYDROGEN FLUORIDE, HYDROGEN CHLORIDE, CARBON MONOXIDE, CARBON DIOXIDE, CHLORINE.

Hazardous Polymerization Indicator:
NO

Conditions To Avoid Polymerization:
FLAMES, IGNITION SOURCES, HEATING ELEMENTS, COMBUSTION ENGINES, ETC.

Toxicological Information

Information:N/P

MSDS Transport Information

Information:N/P

Regulatory Information

Sara Title III Information: N/P

Federal Regulatory Information: N/P

State Regulatory Information: N/P

Other Information

Other Information:N/P